AMENDMENTS TO THE CLAIMS

Cancel Claim 20 without prejudice. Please accept amended Claims 1 and 18 as follows:

Listing of claims:

1. (Currently Amended) A method for generating one or more computer-executable procedures, comprising the steps of:

recording at least one trace of at least one instance of a procedure, wherein the at least one trace comprises a plurality of steps;

~~simultaneously~~ performing an alignment and generalization of the plurality of steps, wherein the alignment identifies and aligns steps that are equivalent once generalized~~,~~:

determining a procedural model based on the alignment; ~~wherein simultaneously performing the alignment and generalization of the at least one trace further comprises~~

computing a set of possible alignments and generalizations ~~of the at least one trace~~ based on the procedural model~~,~~; ~~and~~

selecting an updated alignment and ~~a~~ an updated generalization from the set of possible alignments and generalizations according to an alignment-generalization functional that determines a rate at which the steps of the procedure are correctly predicted for the set possible alignments and generalizations; and

generating the one or more computer-executable procedures consistent with ~~a selected~~ the updated alignment and the updated generalization.

2-3. (Canceled)

4. (Previously Presented) The method of claim 1, wherein the alignment-generalization

functional selects an alignment having a greatest number of correctly predicted steps according to a procedure model.

5. (Previously Presented) The method of claim 1, wherein the alignment-generalization functional selects a generalization having a greatest number of correctly generalized steps according to a procedure model.

6. (Previously Presented) The method of claim 1, wherein the alignment-generalization functional is a monotonically increasing function of an alignment functional and a generalization functional.

7. (Previously Presented) The method of claim 6, wherein the monotonically increasing function selects the alignment and the generalization from the set of possible alignments and generalizations that maximizes a linearly increasing function of the alignment functional and the generalization functional.

8. (Previously Presented) The method of claim 1, wherein the alignment-generalization functional is maximized using an optimization technique.

9. (Previously Presented) The method of claim 8, further comprising applying the optimization technique iteratively.

10. (Previously Presented) The method of claim 9, wherein the optimization technique is a

gradient-descent technique.

11. (Original) The method of claim 1, wherein simultaneously performing an alignment and generalization of the at least one trace further comprises the steps of:

    computing an initial alignment and generalization of the at least one trace;

    generating a procedure model of the initial alignment; and

    computing a best alignment and generalization of the procedure model.

12. (Original) The method of claim 11, further comprising the step of:

    repeating the steps of determining the initial alignment, generating the procedure model, and determining the best alignment until a local optimum is detected.

13. (Original) The method of claim 11, wherein generating a procedure model of the initial alignment comprises generating a Hidden Markov Model of the initial alignment.

14. (Original) The method of claim 13, wherein generating a Hidden Markov Model of the initial alignment comprises generating an Input/Output Hidden Markov Model of the initial alignment.

15. (Original) The method of claim 1, wherein simultaneously performing an alignment and generalization of the at least one trace further comprises the steps of:

    determining an initial alignment and generalization of the at least one trace;

    generating a transition model and an action model of the initial alignment and generalization; and

determining a best alignment of the transition model and the action model.

16. (Original) The method of claim 15, wherein further comprising the step of:

repeating the steps of determining the initial alignment, generating the transition model and the action model, and determining the best alignment until a convergence is detected.

17. (Original) The method of claim 15, wherein generating a transition model and an action model of the initial alignment and generalization comprises generating a transition model for at least one node and an action model for the at least one node.

18. (Currently Amended) A machine-readable medium having instructions stored thereon for execution by a processor to perform a method for generating one or more computer-executable procedures, comprising the steps of:

recording at least one trace of at least one instance of a procedure, wherein the at least one trace comprises a plurality of steps;

~~simultaneously~~ performing an alignment and generalization of the plurality of steps, wherein the alignment identifies and aligns steps that are equivalent once generalized~~,~~;

determining a procedural model based on the alignment; ~~wherein simultaneously~~ ~~performing the alignment and generalization of the at least one trace further comprises~~

computing a set of possible alignments and generalizations ~~of the at least one trace~~ based on the procedural model~~,~~; ~~and~~

selecting an updated alignment and ~~a~~ an updated generalization from the set of possible alignments and generalizations according to an alignment-generalization functional that

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determines a rate at which the steps of the procedure are correctly predicted for the set possible alignments and generalizations; and

generating the one or more computer-executable procedures consistent with ~~a selected~~ the updated alignment and the updated generalization.

19-20. (Cancelled)